

CURRICULUM VITAE

Khalid Ghazi Fandi, PhD.



PERSONAL & CONTACT INFORMATION

Name Khalid Ghazi Daifalla Fandi
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Designation Associate professor
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Date of birth 12-03-1968
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Research Gate:

https://www.researchgate.net/profile/Khalid_Fandi

Google Scholar (h-index: 6)

<https://scholar.google.com/citations?user=RYR0Pv0AAAAJ>

EDUCATION

- 2001 **PhD**, Molecular Biology / Biochemistry, University of Putra Malaysia (UPM), Malaysia.
Title of Dissertation: "Purification, characterization and molecular studies of F6PPK from bifidobacteria"
1993 **MS**, Biochemistry, Aligarh Muslim University (AMU), India.
1990 **BS**, Biology / Environmental Biology, Yarmouk University, Jordan.

PROFESSIONAL HISTORY

- 2011- present **Associate Professor**, Department of Biological Sciences, AHU, Jordan
2015- 2017 **Assoc. Prof.**, Dept. of Clinical Biochemistry, Faculty of Medicine, University of Tabuk, KSA
2013-2015 **Assoc. Prof.** Dept. of Pharmacology College of Pharmacy, Aljouf University, KSA
2005 -2011 **Assistant Professor**, Dept. of Biological Sciences, AHU, Jordan
2006 -2008 **Chairman**, Dept. of Biological Sciences, AHU, Jordan
2004-2005 **Head**, School of Life Sciences – Biotechnology, Technology Park Malaysia Academy (TPM Academy), Malaysia
2002-2003 **Lecturer at College of Pharmacy**, Jordan University of Science and Technology, Philadelphia University and Al-Zaytuna University, Jordan
2000 **Lecturer** of American Degree program, Sepang Institute of Technology (SIT), Malaysia
1995-1996 **Research Assistant**, plant molecular genetics, National University of Malaysia (UKM),

AREAS OF EXPERTISE

Protein /Enzyme Biochemistry/Biotechnology, Molecular Biology, Microbial Biotechnology. Environmental Microbiology.

RESEARCH

Principal investigator

- Metabolites of Jordanian hot springs thermophilic bacterial species, 2009, Granted by DFG, Germany
- King Talal Dam water Biochemical Assessment, 2007-2008, Granted by NCB, Jordan
- Diversity, Vertical Distribution, and Metabolic Activities of Thermophiles and Halophiles in the hot springs and in the Dead Sea , Jordan, 2007-2010, Granted by AHU, Jordan

Co-investigator

- Proteomics and Molecular genetics of oil palm, 1994 –1997, Granted by IRPA, Malaysia
- Detection, isolation and purification of Enzymes from Probiotics, 1995 – 2000, Granted by IRPA, Malaysia
- Nanoparticles as Drugs delivery system “A novel microfluidic rotary mixer actuated by biological Nano-Engineered flagellar motors” , 2009-2012, Granted by JUST, Jordan
- Development of molecular markers for probiotics strains “Bifidobacteria”, 1998 –2001, UPM, Malaysia
- Effect of organic dissolved nitrogen of phytoplankton in Gulf of Aqaba, 2006 –2007, AHU, Jordan
- Gut content analysis and in situ grazing experiments of selected species of zooplankton in red sea” AHU, Jordan
- Methanotrophic bacteria use in bioreactors - Production of Nutraceuticals, 2004-2007, Granted by TPM, Malaysia
- The use of Computer Integrated Farming (CIF) system to optimize aquaculture products and by-products as animal feed and biofertilizer, 2002-2005, Granted by TPM, Malaysia
- Waste water treatment : Biodegradation and Bioremediation, 2006 – 2009, UII, Malaysia

ACADEMIC HONORS AND AWARDS

- Undergraduate fellowship for Bachelor studies from Ministry of Higher education, Jordan 1986-1990.
- Graduate Research Assistant scholarship (GRA) for PhD student from University Putra Malaysia, Malaysia, 1996-2001.
- German research fellowship (DFG), Institute for Organic and Biomolecular Chemistry, University of Göttingen, Germany, 2009.

SCIENTIFIC RESEARCH VISIT

Jun-Sept 2009 at Institute for Organic and Biomolecular Chemistry University of Göttingen, Germany, "Metabolites of Jordanian hot springs thermophilic bacterial species".

Jun-Aug 2007 at Department of Biotechnology Engineering, Faculty of Engineering, International Islamic University (IIU), Malaysia, "Biodegradation and Bioremediation - waste water treatment".

Jun-Aug 2005 at Biological and Agricultural Engineering, The University of Arkansas, Fayetteville, USA, "Nano engineered biological rotary motors as Ready-to-use Devices".

WORKSHOPS TAKEN & TRAINING

April 3-14, 1995

Attended a training course on "Molecular Techniques in Plant Biotechnology". Held at National University of Malaysia (UKM), Bangi, and cooperation with Universiti de Geneve.

Nov 2003 -Jan 2004

Involved in a short-term e-descriptor (Bioinformatic) project at the International Plant Genetic Resources Institute (IPGRI), Regional for Asia, the Pacific and Oceania, Serdang, Malaysia

May 5, 2016

Electrocardiogram, basics and advanced (4 CME hours), faculty of Medicine University of Tabuk and Saudi Commission for Health Specialties.

April 7-9, 2015

International conference on Premitive Dentistry, ICPD 2015, Aljouf University, Aljouf KSA,

April 20, 2017

Writing and Revising Learning outcomes of Module-Based Medical courses, Faculty of Medicine

EXAMINING COMMITTEE

MSc Thesis

1- Utilization of Dry Olive Mill Residues (DOR) for the Production of Xylanase Enzyme by *Aspergillus terreus* in Solid State Fermentation By **Ammar Al-Sheikh**, 2012, Dept. of Biology and Biotechnology, Hashemite University, Zarqa – Jordan.

2- Submerged Culture Fermentation of Olive Mill Wastewater (OMW) for the Production of Extracellular Cellulase Enzyme by *Trichoderma viride* By **Maram Al Tharf** , 2011, Dept. of Biology and Biotechnology Hashemite University, Zarqa – Jordan.

PROFESSIONAL ACTIVITIES AND SOCIETY MEMBERSHIP

- Grand Awards Judge at the Intel International Science and engineering Fair (Intel-ISEF) 2017, Los Angeles, CA, USA
- Grand Awards Judge at the Intel International Science and engineering Fair (Intel-ISEF) 2014, Los Angeles, CA, USA
- American Society for Microbiology (ASM), 1998-present, USA
- American Society for Biochemistry and Molecular Biology (ASBMB), 2008-present, USA
- Malaysian Society for Molecular Biology and Biotechnology (MSMBB), 1995-2001, Malaysia
- Member of the National Center of Biotechnology (NCB)-Jordan www.ncb.gov.jo, 2006-present, Jordan
- Technical committee of Malaysia's National Biotechnology policy at Ministry of Science, Technology and Innovation Malaysia, 2004
- Technical committee of Biotechnology Intensification of Research in Priority Areas (IRPA) funding at Ministry of Science, Technology and Innovation Malaysia 2004-2005, Malaysia
- Involved in conducting and running a twinning program of BSc Degree in Biotechnology with Technology Park Academy, Malaysia and California State Universities CSU's California, Pomona, 2004-2005
- Member of the environmental committee of the National Center for Biotechnology (NCB), Jordan, 2006-2009, Jordan
- Scientific Judge committee of International Intel award for Science and Engineering (Intel-ISEF), inventors and explorers annually under the supervision of the Ministry of Education of Jordan from 2006 - present
- Chairman / member of many tenders committees and academic committees, TPM, AHU.
- President for the Postgraduate Student Society of Faculty of Food Science and Biotechnology (UPM), 1997-2000. Malaysia

MEMBERSHIP OF EDITORIAL BOARDS OR REFEREEESHIP FOR PERIODICAL PUBLICATIONS

Associate Editor

- Eurasian Journal of Agricultural and Environmental Medicine

Reviewer

- Journal of Environmental Biology (JEB)
- Jordan Journal of Biological Sciences (JJBS)
- American-Eurasian Journal of Sustainable Agriculture
- Advances in Natural and Applied Sciences
- International Conference on Biotechnology Engineering 2007, May 8-10, international Islamic University in Kuala Lumpur, Malaysia
- National Postgraduate Conference on Engineering, Science and Technology, NCP 2009, March 25-26, University of Technology PETRONAS, Malaysia

Organizing Committee

- International Summit on Microbiology and Parasitology during October 25-26, 2018 at Prague, Czech Republic

TEACHING COURSES EXPERIENCE

General Biology, General Science, Molecular Biology, Clinical/Biochemistry, Biotechnology, Enzyme/Protein Technology, Cell Biology, Modern Techniques in Biotechnology, Microbiology, Microbial Genetics and Organic Chemistry.

LANGUAGES & SKILLS

Fluent in 2 languages (Arabic & English), Bahasa malayu (good) and Hindi,
Computer Skill: Windows, Microsoft office (MS word, PowerPoint, Excel, internet) software packages (Primer design, PRISM...).

PUBLICATIONS

Peer-reviewed Articles

1. Muhammad Tariq, **Khalid Fandi**, Rashid Mir, Yassir Birema, FM abuduhier, (2018) (accepted), Frequency of cardiac Troponin T (TNNT2) polymorphism, a Dilated cardiomyopathy gene in Tabuk population. *Indian Journal of Public Health research and Development*.
2. Muhannad I. Massadeh and **Khalid Fandi** (2014) Acetone-Butanol-Ethanol (ABE) Production by Anaerobic Microflora Growing on Olive Mill Wastewater. *J. Biobased Mater. Bioenergy*, 8, pp. 94-99.
3. **Fandi K. G.**, F. H. Shah, H. M. Ghazali. (2011) Protein profiling during mesocarp development in oil palm fruit. *Pertanika Journal of Tropical Agricultural Science*, 34 (1), pp. 63 - 73.
4. Al-Fandi M., M. A. K. Jaradat, **K. G. Fandi**, J. P. Beech, J. O. Tegenfeldt and T. C. Yih. (2010) Nano-engineered Living bacterial Motors for Active Microfluidic Mixing, *IET Nanobiotechnology*, 4 (3), pp. 61-71.
5. Massadeh M. I., A. Frajj, **K. G. Fandi** (2010) Effect of Carbon Sources on the Extracellular Lignocellulolytic Enzymetic System of Pleurotus Sajor-Caju. *Jordan Journal of Biological Sciences*, 3 (2), pp. 51-54.

6. **Fandi K. G.**, I. Y. Qudsieh, S. A. Muyibi, M. I. Massadeh (2009) Water Pollution Status Assessment of King Talal Dam, Jordan. *Advances in Environmental Biology*, 3 (1), pp. 92-100.
7. Qudsieh I. Y. , A. Fakhru' l-Razi, N. A. Kabbashi, M. E. S. Mirghani, **K. G. Fandi**, M. Z. Alam, S. A. Muyibi, M. M. Nasef (2008) Preparation and characterization of a new coagulant based on the sago starch biopolymer and its application in water turbidity removal. *Journal of Applied Polymer Science*, 109 (5), pp. 3140-3147.
8. M.A. Wedyan and **K. Fandi** (2007) Soluble Organic Nitrogen in the Marine Aerosol over the Gulf of Aqaba (Jordan). *Journal of Applied Sciences Research*, 3(8): 787-790.
9. M.A. Wedyan, **K.G. Fandi** and S. Al-Rousan (2007) Bioavailability of Atmospheric Dissolved Organic Nitrogen in The Marine Aerosol over the Gulf of Aqaba. *Australian Journal of Basic and Applied Sciences*, 1(3): 208-212
10. Qudsieh I. Y., N. A. Kabbashi, M. F. Al-Khatib, M. Z. Alam, M. A. Atieh, **K. G. Fandi**, A. Mamun, M. Z. Rahman, S. A. Muyibi (2007) Enzymatic Biodegradability Behavior Of Poly (Methyl Methacrylate) Grafted Sago Starch Biopolymer” *IJUM Engineering Journal*, 8 (2), pp 37-45.
11. **Fandi K. G.**, H. M. Ghazali, M. A Yazid, A. R. Raha. (2001) Purification and N-terminal amino acid sequence of fructose-6-phosphate phosphoketolase from *Bifidobacterium longum* BB536. *Letters in Appl. Microbiol.* 32 (4), pp. 235-239.
12. **Fandi K. G.**, H. M. Ghazali, M. A Yazid, A. R. Raha. (2000) Purification and characterization of fructose-6-phosphate phosphoketolase from *Bifidobacterium asteroides*. *Asia Pac. J. Mol. Biol. Biotechnol.* 8 (2), pp.137-146.

Proceedings

13. **Khalid Fandi**, Nayef Al-Muaikel (2015) Extraction and Purification of Biochemical Molecules from Thermophilic Bacteria . In the 5th International Conference on Biological and Medical Sciences (ICBMS'15), Abu Dhabi (UAE), March 16-17.
14. **Khalid Fandi**, Nayef Al-Muaikel, and Fouad Al-Momani (2014) Antimicrobial activities of some thermophilies isolated from Jordan hot springs. In the 2nd International conference on Biological and Chemical Processes (ICBCP'14), Kuala Lumpur, Malaysia, March 27-28.
15. **K. G. Fandi**, M. Bahi, M. A. Abdalla, M. Massadeh, H. Laatsch (2010) Screening Metabolites of Thermophiles from Thermal Springs Jordanian Bacteria by LC-MS/MS Profile. In the Proceedings of the 110th General meeting ASM, San Diego Conventional center, CA, California USA 23-27 May 2010.
16. Al- Fandi M., M. Al-Rousan, M. Jaradat and **K. G. Al-Zoubi (Fandi)** (2008) Nano Engineered Biological Rotary motors as Ready-to-use Devices: Integration Challenges, Simulations and Opportunities. Knowledge based industries & nanotechnology conference, Doha, Qatar 11-12 Feb. 2008.
17. **Fandi K. G.**, H. M. Ghazali, M. A. Yazid. (2000). Properties of fructose-6-phosphate phosphoketolase purified from *Bifidobacterium asteroides*. In the Proceedings of the 100th General meeting ASM, Los Angeles Conventional center, LA, California, USA. 21-25 May 2000.
18. **Fandi K. G.**, H. M. Ghazali, M. A. Yazid. (1997) Extraction and characterization of Fructos-6-phosphate-phosphoketolase (F6PPK) in *Bifidobacterium asteroides*. In Proceedings of the 9th National Biotechnology Seminar, Penang, Malaysia. 23-26 Nov. 1997

RESEARCH HIGHLIGHTS

Research area

My research interests are in Microbial Biotechnology, Protein /Enzymes Biochemistry, Plant Molecular Biology, Environmental Microbiology and Nanobiotechnology.

ENZYME BIOCHEMISTRY

Detection, isolation and purification of Enzymes from microorganism.

My primary research interests in protein or enzymes that play role in the metabolic pathway in microorganisms. During my Ph.D., I have purified and characterized the key enzyme in bifidobacteria (probiotic) metabolic pathway (F6PPK) using various analytical techniques such as ion exchange and gel filtration chromatography including HPLC and FPLC. From the above work the partial sequence of N-terminal amino acid of F6PPK was published for the first time in *Letters in Appl. Microbiol.* journal. I have also developed a species-specific oligonucleotide probe based on the partial sequence from the N-terminal amino acid of F6PPK for rapid identification of bifidobacteria.

PLANT MOLECULAR BIOLOGY

My research focused on differential protein expression during oil palm fruit development using 2-DE and molecular technique including construction and screening of cDNA, cloning, PCR, different blotting techniques and DNA sequencing. I also participated in different training courses of molecular techniques in plant Biotechnology.

ENVIRONMENTAL BIOTECHNOLOGY

Our research focus is primarily on exploration and exploitation of Jordanian's rich microbial diversity (both cultivable and uncultivable) for novel bioactive molecules and biocatalysts with application in health, agriculture and industry, and their overproduction using conventional and molecular biology tools

MICROBIAL BIOTECHNOLOGY

My present area of research focuses on Bioprospecting and characterization of novel extremophiles for bioactives and biocatalysts. This research will be mainly focuses on purification and characterization of bioactive molecules and new/novel enzymes from the environmental samples from unique niches.

In 2009 I have been awarded a DFG research grand at Prof H. Laatsch's lab in Gottingen University, Germany. My research work included metabolite identification and profiling of thermophilic bacteria obtained from different thermal springs in Jordan using NMR and LC-MS/MS. Furthermore, I have purified various metabolites using silica gel, sephadex LH-20, RP18 column chromatography and preparative PTLC.

Microbial Metabolites: Thermophiles are a group of organisms characterized by their ability to live and flourish in unusually harsh conditions of high temperatures. Over the past decade, thermophiles have generated great interest both from fundamental and applied science perspectives. From biotechnological point of view, thermophiles are of interest as sources of unique enzymes with unusual properties, as the active agents in high-temperature fermentation, in waste-treatment processes, and in mineral leaching. The local resources of hot springs in Jordan are very rich in thermophilic microorganisms that are capable to produce thermostable enzymes and biological active compounds that have importance in industrial and biotechnological applications. Biodiversity and metabolic activities of prokaryotes live in extreme habitats, Thermophiles, which have not been fully examine yet in Jordan hot springs, is still not satisfactory. Therefore, this study was designed to investigate for the production of biochemical compounds of aerobic thermophilic bacteria using different culturing media as carbon sole sources.

The microbial isolates, obtained from thermal springs of Jordan, was cultured and optimized their medium. Extracts from thermophilic micro-organisms were screened using chemical, physical and spectroscopic techniques and various bioassays: These are antimicrobial tests, screening for phytotoxic and cytotoxic activity. Strains with interesting activities were scaled up fermentation; the metabolites were extracted, isolated and purified using normal phase chromatography, HPLC, countercurrent chromatography, size exclusion chromatography and solid phase extraction. Novel structures were elucidated using different types of 2D-NMR experiments like COSY. Number of purified known types of compounds were identified by means of databases developed at Prof H. Laatsch's Lab in Göttingen for this purpose

Bioactive Metabolites: I have been collaborating with photochemistry group in the Department of Biology at AHU to investigate the **antimicrobial activity** of extracts from medicinal plants.

Bioremediation: I have a joint research with some members in the Department of Biotechnology Engineering at UIA, Malaysia to investigate the surface water pollution and the use of microbes in bioremediation of pollutants such as heavy metals and phenolic compounds.

Enzymes Biotechnology: in collaborating with other team in HU, Jordan, our present area of research is enhancing yield in complex biochemical reactions by application of natural enzymes or by adding synthetic catalysts. There has been an intensive research focus on reactions and processes involved in breakdown of cellulosic biomass. Thus process has been focused on developing cocktails of free enzymes and pre-treated substrates as an alternative to optimize cellulose degradation.

Current research projects include:

- *Molecular and biochemical characterization of bioactive molecules and enzymes from cultivable microorganisms with special properties from extremophiles such as thermophiles, and halophiles.*
- *Exploration of microbial wealth for novel compounds and biotransformation which involves the identification of diverse microbial flora using 16S rRNA*
- *Metabolic activity of thermophilic bacterial species isolated from thermal springs of Jordan*
- *Identification by molecular methods the most metabolically active sulfur-cycling prokaryotes in hot spring and Dead Sea in Jordan*

NANOBIOTECHNOLOGY

Recent advances in nanotechnology have produced several applications in medicine, environment, agriculture, biotechnology and industry. Recently I have been working in collaboration with a nanotechnology and BioMEMS group in the application of Nanoparticles as Drugs delivery system "A novel microfluidic rotary mixer actuated by biological Nano-Engineered flagellar motors"

APPROACHES AND TECHNICAL INTERESTS:

- Genomics (metagenomics) and proteomics of microbial communities in natural environments; functional approaches for identifying genes and enzymes.
- Natural products
- Biochemistry: protein purification and enzyme structure and function.
- Environmental Biotechnology: bioremediation and biodegradation.
- Molecular Biology: gene / protein expression
- Nanobiotechnology

STATEMENT OF TEACHING PHILOSOPHY

Over the last 10 years, throughout my career I have been involved in teaching on several levels and in various environments. The current statement reflects my teaching philosophy up to this time where teaching, research and learning are going side by side. As parts of the teaching process, both the teacher and students learn from each other and thus both parts do participate. Teaching is an exciting message to be delivered in a dynamic way depending on needs and latest update developments. I believe a critical part of my role as a teacher is to promote higher order thinking, so that new information can be understood and applied instead of memorized.

My teaching interests are closely related to my background and research interests of biochemistry and molecular biology. Thus, staying current by engaging in research, participating in classes, and attending conferences and workshops is essential for my teaching. Knowing what to teach is as important as effective methods of teaching. I recognize that students learn in different ways and teachers should be able to vary teaching styles. I expect students to participate in a mixture of lectures, discussions and group activities.

My current interests in protein biochemistry, environmental biotechnology and molecular biology gives me a broad background that, for a successful researcher, must remain current. Staying up-to-date is imperative and this state-of-the-art knowledge will be reflected in my classes

Assessment Strategies and Tools: I believe that when students are shown how the individual pieces of knowledge fit together, they will understand science better and will therefore find it easier and more enjoyable to learn. As new knowledge is introduced, students should be taught how it will be applied. Thus, I try to give a brief summary of the “big picture” whenever a new chapter or a new concept is introduced. I also create lists of objectives for each course, and these are made available to students at the beginning of the semester; these lists can help students organize their thoughts and focus on the key objectives as they study. In my courses, I try to emphasize how concepts, problems, or reactions are related to real-world examples. For example, when I try to explain why DNA fragments of different sizes move at different speeds in an electrophoresis gel apparatus, I use Hedge model: Imagine an elephant and a mouse standing before a big hedge of brambles. When the bell rings, they have to race through the brambles to the other side. Who gets through first? This is a “no-brainer” for my students. The mouse always wins! Then I can explain that agarose gels are sort of like the hedge. The elephant is a large piece of DNA and the mouse is a small piece of DNA. When the electricity is turned on (the bell), the DNA starts to travel – large pieces move through the gel more slowly than small. Another example, in my biochemistry class I use the example of wearing rubber gloves to illustrate “induce fit model” of the enzyme substrate. In a non-major course, I have utilized extra-credit assignments that involved students looking for everyday uses of the compounds we discussed in class.

Laboratory courses are also an ideal environment for problem solving and group activities. In the biochemistry laboratory, we have incorporated a two-week chromatography assignment in which students gather data one week and use their data to design the experimental procedure for the second week. Students seem to gain a better understanding of chromatography as a result of the two-week process

Examinations: I have designed my grading practices to encourage an emphasis on learning instead of grade anxiety. I expect from my exams to assess the students’ performance to a certain subject in addition to achieve the objectives of the course. In upper-level courses, I try to utilize homework and test questions that involve higher-order thinking. The tests are designed to assess understanding instead of rote memorization; for example, in molecular biology class we generally discuss the steps of a Base excision

repair (BER), and on a test I sometimes ask students to determine what would happen to the gene expression if the DNA were not repaired. In order to lessen test anxiety, I tend to utilize grading methods that prevent a poor performance on one single test from seriously damaging a student's grade (in some courses, the students can use the final exam to partially compensate a poor test grade). In my upper-level courses, I sometimes utilize a bonus question that allows students to create and answer their own question; I have found this to be a popular means of alleviating students' frustrations regarding material that was studied but not included on the test.

Advising and Office Hours: My position as a chairman for an academic department in different location taught me to take care of students during their terms of study. Advising students to prepare their schedules and how to upgrade their accumulative averages is important. I expect from the office hours to direct students before and after exams and discuss the points that help them to perform better. Some students struggle with the sciences because they believe the material is too difficult to understand. I believe it is my responsibility as a teacher to welcome questions during class and to be available to students outside of the classroom. I typically have an "open door" policy so that students who might have schedule conflicts with my office hours can come by my office whenever I am available. I sometimes ask students to evaluate the course (formally or informally) shortly before the middle of the semester so that I can adjust my teaching style to accommodate the needs of a specific class. When students are motivated to learn and feel comfortable asking for help, they will be more likely to learn and to enjoy the learning experience. To me teaching and learning are synonymous

LEADERSHIP / MANAGEMENT SKILLS

My Ability to lead, supervise and develop administrative staff, including experience with performance management processes is demonstrated by my being a chairman of the Biology department at AHU, and head of School of life Sciences-Biotechnology at TPM.

I took the responsibility to chair the department from the first decision to be established at AHU. Those 2 years I spent as a chairman were of gaining experience, playing as a team leader and communicate with different academic and non-academic departments.

I also was the head of the School of Life Science at TPM, Malaysia for one year. I have demonstrated different project management, including record keeping, preparation of proposals, knowledge of contractual agreements and proven financial skills. In addition, my job responsibilities have included the following:

- Plan and develop curriculum for Biotechnology program (Twining with California State Universities i.e. Cal Poly Pomona)
- Teach and asses student work, conduct a research for biotechnology program
- Monitoring quality assurance for biotechnology program
- Conduct counseling session for student, Liaising with Ministry of Education in Biotechnology Program and ministry of science technology and innovation
- Promote and recruit student for biotechnology and other program

Technology Park Malaysia is one of the world's most advanced and comprehensive centers for research and development in knowledge-based industries. My position also allows me to help identify issues that cross the academic/administrative boundary and focus attention on campus-wide solutions. In addition, I have had the opportunity to help develop and implement new programs for the College as a whole.

My philosophy as a team leader was based on the following:

Leading and Direction: As a chairman and in my new workplace that include people of different attitudes, manners and backgrounds I learned to lead the others in a manner that achieved respect, fairness and openness. To direct my colleagues with respect to their positions mean to encourage them and seize all opportunities to contribute to the different activities that would develop both themselves and the department, in addition to submission of proposals to be funded internally or externally. Supporting staff was also directed to be involved in the department tenders, budget and organization of teaching labs, stores and inventory process. Any opportunity that would develop the supporting staff was followed with the higher offices.

Follow-up and Organization: Once the term is started, several actions need to be followed up, which include the organization of the schedule and load, preparation of the syllabus of each offered course, office hours for each faculty, solving the problems of each expected graduating student and find a suitable place for our students to be trained as one of requirements for graduation.

Innovations and Initiatives: I was successful to implement new ideas that would develop the performance of students and colleagues. One example, students and colleagues were encouraged to participate in the annual scientific days through submission of their activities and mainly by posters which become a major part of each annual day of our college. The Degree Studying plan for B.Sc. program in Biology was developed during my chair to Dept. of Biological Sciences. I also have established the research and teaching laboratories for student.

I spent those years learning how to be a leader by respecting ideas, listening to the others, solving problems and conflicts then have my professional decision. By these concepts I implemented my skills to gear my team to success, which I see my own leadership philosophy.

KNOWLEDGE, SKILLS AND ABILITIES

Demonstrated excellent written, verbal and interpersonal skills.

My effective written and verbal communication skills were demonstrated when studying, working as a researcher, teaching and management experience. My task was to write a report on the Use and Impact of Email as a Communication Tool, and to present the findings to my tutorial group. I also have excellent interpersonal skills including demonstrated experience and skills in liaison, negotiation and conflict resolution with staff at all levels. In addition, I have published more than 10 papers in international peer-reviewed scientific journals and presentations in international conferences.

Effective Teamwork Skills

I work effectively as part of a team in a fast changing environment, to work productively with limited supervision and to work to deadlines demonstrated during my work at TPM by being involved in the research and development projects, such as Computer integrating farming, and spearhead the bioprocess lab for the production of Nutraceuticals from microorganisms. Recently, I involved in different teamwork projects and groups such as Nanotechnology group at Jordan University of Science and Technology and Bioremediation project with the International Islamic University in Malaysia and Microbial metabolites at University of Gottingen, Germany.

Ability to work independently

My ability to work independently is demonstrated by my being responsible for leading an Enzyme lab research group during my Ph.D. and in a number of jobs where I was required to work independently

REFERENCES

Prof. Dr. Hasanah M. Ghazali

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Khalid Fandi (Assoc.. Prof.)

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